Farm Notes.

HOEING BEANS.

The work of caring for beans comes just at the busiest harvest season, and this crop is therefore apt to be neglected. If delayed till after harvest it is too late, and the vine cannot be disturbed without injury. Yet the work in hoeing beans, if done at the right time, saves an equal amount of labor when they come to be harvested, besides the advantage to the crop.

BERRIES FOR HOME USE.

However low the price of berries may be, the farmer who grows them for market can make a profit in having a free and abundant supply for his own family. He cheats himself badly if he does not do this. And the difficulty of getting berries just when and as wanted makes it the duty of farmers to grow enough for home use rather than to rely on the precarious supply that may be, but oftener is not, bought.

BARREN COWS.

If a cow after repeated service fails to get with calf keep her carefully from the bull three months or more and then try again. Let her take the bull as near as may be to the end of the heat. The excitement of this period often causes cows to discharge or destroy the vitality of her semen. Throwing a pailful of water on the cow's back and sides after the service is said by old farmers to be a sure method of getting a cow with calf provided she is not hopelessly barren.

TURINPS AMONG CORN.

There is yet time for growing a white turnip crop among the corn. In fact, it is better sown the middle or last of July, and it is almost the only crop that can be got with corn which will not injure it more than the crop will be worth by preventing late cultivation. The turnip makes more of its growth after corn is cut by frost, and in the shade of corn leaves in July and August it is safer from attacks of the fly than if in a patch all by itself.

SUCCULENT FOOD FOR COWS.

As the pastures become dry and parched the flow of milk diminishes in part because cows do not get enough moisture in their food. Early in the spring fresh grass makes a large flow of not very rich milk. The lack of substance in grass and stimulation of milk glands make it advisable to feed grain or meal to keep the cow in good heat. Now if meal is fed it should be so diluted with water that a large proportion will go to making milk. If this is not done the cow will soon fatten and be fit only for the butcher.

SUCKERS FROM BEARING TREES.

It is not a good plan, though a very common one, to get suckers that sprout from the roots of old trees and graft these for orchard planting. One difficulty with this plan is that the plague of suckers is always cursing the man whose trees are thus procured. The root of a sucker is long and horizontal. Wherever it is cut off or in any way injured, new suckers will speedily appear. In seedlings the mass of fine roots near the center if evenly distributed on each side, and with proper cultivation may be kept far enough down not to be distributed.

FEEDING LITTLE PIGS.

A pig will learn to drink milk as early as will a calf, if from any cause it cannot get a sufficient supply from its dam. Many sows have more pigs than they have teats, hence feeding one or more becomes a necessity. It will be best to feed several times a day, and only a little at a time at first. If the sow is confined in the pen she should be liberally fed and with a large proportion of skim milk. When the pigs are two weeks old they may be fed a little milk in a yard adjoining the pen, where they can eat by themselves. Throw a few handfuls of oats for the sow. The pigs will soon learn from her to pick up the grains, which will be excellent for making strong, healthy growth, and the oats are probably the best grain feed to make the sow give an abundance of milk.

CORRECTING ACIDITY IN SOIL.

Where land is sour this effect is always caused by stagnant water, the getting rid of which is the only cure. It is imposible to put on lime in quantity sufficient to sweeten the soil where water and decaying vegetable matter are constantly creating fresh acidity. With good cultivation lime or potash may make such soil productive for a single season, though opening the soil to admit air, and thus dry it, will do much more to sweeten it than any alkaline fertilizers that can be applied. In most cases sour land has dried out by midsummer, and from now until winter be productiva for any crop that can now be planted on it. This fertility is, however, only an aggravation, as it shows how much better uses the land might be put to if drained, so that it could be worked early in the season.

FEEDING MILCH COWS.

Mr. Webb of Connecticut, at a farmers' meeting last winter, stated that he was feeding some forty-five milch cows, that he gave two feeds a day with long forage, feeding three or four feeds of corn stalks, and hay once in two days. The reason of this ration is because corn stalks were plenty and hay scarce. He stated that he had an acre and a half to two acres of sowed corn sowed early in the season. In January he gave one feed of that corn, cut up corn and all, in the room of a feed of hay. So his feed was to be one feed of corn fodder with the corn, one feed of corn fodder without the corn one day, and the next day a feed of hay and a feed of corn fodder. In addition, he was feeding from three to four quarts of corn meal to each cow. He believed corn meal to be cheaper than hay. He was also feeding brewers' grains a peck a day, or six quarts to a cow, becase he considered it a good feed when in proper conditon and properly fed. He also demanded that such starch feed should be fresh and fed before fermentation takes place. If he had his choice he would feed early-cut hay, and perhaps a peck of wheat bran and four to six quarts of corn meal, if he were feeding one milch cow. For a dairy he would substitute brewers' for the wheat bran. He would not use brewers' grains if they were fermented. He had found it impossible to get starch feed that was not sour.

AMMONIA IN MANURE.

Ammonia may be present in the manure heap, and yet be of very little value to the farmer. Its benefit is not in proportion to its quantity in the manure heap, but according to its condition and form. In its volatile condition it is very light and volatile, and escapes into the atmosphere, where it is diffused over space. But it is the product of vegetable decomposition, and is not always present, though nitrogen from which it is derived (in connection with hydrogen), is contained in all vegetable matter. Nitrogen may exist in a cornstalk, but in a form that renders it useless. During the decomposition of the cornstalk, the nitrogen is set free from its original combination, when it meets hydrogen, one part of the former (by volume) and three of the latter, forming ammonia. Hence, while the cornstalk contains fertilizing material, it is unserviceable until this material has undergone a change and arranged itself under new forms. When the farmer buys a bag of fertilizer guaranteed to contain a certain proportion of nitrogen, analysis may prove the statement correct, but the nitrogen may be as useless as so much stone. Leather scraps are rich in nitrogen, but in the process of tanning the leather is preserved and decomposition prevented. The nitrogen, though present would be costly, as the farmer could not derive any benefit therefrom. If the nitrogen however, be present in the fertilizer, in the shape of sulphate of ammonia it would be soluable and available, and the results from its use would be satisfactory. This matter is a very important one to the farmers, as they are unable to judge of the quality of a fertilizer by the usual guaranteed analysis, but the difficulty may be obviated by compelling all dealers to state the form in which the nitrogen exists in the fertilizer. Leather scraps, ground are largely used in some fertilizers, and our experiment stations are bringing these facts to light. It is not necessary that the ammonia should exist as salts however. There are some substances that soon undergo a change and become available after being applied to the soil, such as dried blood, ground fish and guano, but the most valuable are the salts—nitrate and sulphate. Every manure heap converts the crude materials into salts, and care should be exercised in having all manure thoroughly decomposed and in a fine condition.

OLD HORSES PREFERRED TO YOUNG.

Accustomed to the early ruin of horses from ignorant management, and especially from the failure of their feet, the larger part of the community consider a horse old at twelve or fifteen. In fact this should be the prime of his life, and he may then continue at his highest usefulness until he is past twenty. Senility with disagreeable accompaniments may then be expected, and a merciful grave will be provided for a faithful servant. Danger lies in the use of young horses; they cannot be taught everything, accustomed to every possible sight and filled with confidence but in the school of experience, and that is the school of time. Confidence, not in himself, but in the hand that holds his mouth, is the attribute of the old horse. He was safely carried through the frights of youth by the superior being that sits upon his back, or behind him, and no motion of mind or body is to be made but from that guiding hand.

It is safer also to buy an old horse. Young horses are subject to bodily changes; the splents, curbs, spavins, windgalls, distempers, etc., attack the young horse. The old horse may have had them and recovered from all acute action so that only the blemish of the spavin remains, while the splent has been absorbed, and the puffs and enlargements, so common in youth, are smoothed out by years. If an old horse is sure-footed he will be until extreme age breaks him down; if he has a clear eye he will see to the last; if he is quiet and free from stable tricks he will not acquire them. He will bear the most trying thing, that young horses cannot safely endure, keeping in the stable without daily exercise, and when he goes out he will be able to do his work without fret, and he will not tire so soon as the young horse. Old and young horses should not be mated in harness, for the old one will wear the young one out.—*James E. Russell, Secretary of the Massachusetts Board of Agriculture.*

REMEDIES FOR CABBAGE WORM.

An experiment tried by C. C. Young, of Henry county, Ohio, results in the discovery that unleached wood ashes prevents the ravages of the cabbage worm and the deposit of eggs by the millers. He says: "I took dry unleached wood ashes full strength and splashed right on top of each plant, from a half to a full stovel full, determined to kill the worms if it killed the cabbage (which was sure of total destruction any way, if no better remedy could be found than has been applied,) and, to my satisfaction and almost astonishment, the first application proved a radical cure, killing most instantly every worm touched by the ashes. I took pains to jar the plant by hitting it lightly with my foot, to shake the ashes thoroughly between the leaves, to be sure to make soap of every worm. The plants were not only uninjured by the ashes but started with new life and energy. The swarm of millers which had constantly hovered over the patch seemed to leave in disgust, and no further trouble was experienced for several weeks, but a rapid and unmolested growth of the plant ensued."—*Rural Record.*

FALL OR SPRING COLTS.

Shall the colts be foaled in the spring or fall, is a question that has often been discussed without any conclusion being reached. The truth is, it depends upon what time the colt is foaled. If it comes in January it allows three or four months before the mare is to be used in the field, and the colt by that time, is old enough to receive nursing in the morning, at noon and at night, provided that during the interval he is given a small feed of scalded ground oats, as the colt will begin to eat oats at that age. If the colt comes in April or May, however, it will be just at the busiest period, and as it will not do to keep him away from his dam too long, if the mare is worked he will be stunted in growth. A colt should be allowed to suck his dam at least five times a day. It is troublesome to be compelled to unhitch the mare several times a day, and if the colt is allowed to remain at her side he becomes a nuisance. While we admit that the spring is the most appropriate period for having the colts come in, as it avoids exposure to winter when they are young, yet the fall is better when the use of the mare is required on the farm. A colt foaled in November will be six months old by May; and can then be weaned and turned on the pasture. In the winter, if he is kept warm and comfortable, he will make rapid growth, and the mare will have nothing to do but attend to his wants. The farmer will then have time to care for the colt, and by feeding the mare well the young fellow will ask no favors for himself by May, while the mare will also be in better condition for spring work.—*Farm, Field and Stockman.*

BUILDING UP A HAY STACK.

The great point to be secured in stacking hay is, to keep the center the highest. If this is done water cannot penetrate into the stack, but will find its way to the outside under the most unfavorable circumstances. If, on the other hand, the center is hollow, the water must drain to the center and so ruin the stack. An excellent way to build a stack is to set a tall sapling in the ground, with a foundation of rails around it; then begin at the center, and place the hay about the pole, gradually spreading, until the edge of the base is reached. Continue building up the stack, the highest in the center around the pole, the builder standing in the center so as to tread the hay firmly there. As the stack settles, the outside sinks more than the center, and helps to make the stack better. The top of the stack is finished by fastening a covering of hay to the pole, with hay bands wound firmly around it. A stack so made will not leak, and even clover hay may be safely stacked in this manner, because the water must make its way to the outside by the force of gravity, and escape there by dropping to the ground clear of the stack.—*American Agriculturalist.*

BAD MANAGEMENT THE CAUSE OF SCOURS.

Scouring in calves is caused more by bad management than from any constitutional complaint or epidemic. Keeping in badly ventilated stables, lack of bedding, not cleaning the stable properly, over feeding when young, allowing them to become covered with lice, lack of salt or a a little good hay or fresh earth, are the principal causes of scouring calves. All persons troubled should see that the laws of nature are complied with before resorting to a quack medicine and large doses of this or that for a cure. A little yellow dirt or subsoil, placed where they can get it, I have found by 30 years' experience to be a sure corrective. If stabled, put a little fresh earth in the manger; if in the pasture, plow a deep furrow and turn up the subsoil. If the calves are very bad, put some of the cool, fresh earth in their mouths. But keep the calf clean, take good care of him and doctor him with common sense and you will have very little trouble.—*N. C. C., in N. E. Homestead.*

MILLET THIS MONTH.

Millet is a warm weather grass, and thrives well on sandy or clay soils. It affords but a single cutting, though it grows better than Hungarian and yields more hay. The best time to cut it is just when the seed heads are forming. Under no circumstances should it seed, as the seed is not desirable for stock, and takes from the stalks a proportion of the nutriment. For a crop on good land, sixteen quarts of seed per acre may be used, as the thicker it will stand the better, but for seed six quarts are sufficient. Before putting in the seed get the ground in the finest possible condition, use plenty of manure, and harrow the seed in lightly after sowing. The crop should be cured quickly and stored in the barn as soon as it is ready, as exposure to dampness is injurious to it.—*Farm, Field and Stockman.*

—An iron tower 984 feet high is to be erected on the grounds of the coming Paris International Exhibition. The tower will be supported by four pillars, which will be higher than the magnificent tower of the Cathedral of Notre Dame, which has an altitude of 292 feet. The structure will cost $1,000,000, and will be surmounted by a powerful electric light that will be visible as far as Dijon, which is 197 miles southwest of Paris.

THE GOAT AS A DAIRY ANIMAL.

In England they now have a special breed of goats for the dairy, and an association has been formed, the best animals registered in a flock book, and a general improvement determined on. In fact, an illustration of a celebrated dairy goat, recently appearing in an English paper, showed such a capacity of udder as to compare favorably with some cows now in our dairies. And why should not the goat be given a useful place among our domestic animals? If it can be so improved as to give large quantities of milk, it will largely contribute to the assistance of those who have no facilities for keeping a cow, while their prolificacy will place them within the reach of all. There is a very foolish prejudice against the goat. Its flesh is even superior to mutton, possessing a gamey flavor in which the sheep is lacking, and if the males are castrated at an early age, fattened and sold at about one year old, we venture to predict that once the public is educated to the value of the meat there will grow up a demand which will not be easily supplied. As to the flesh of the kid, it is excellent. The goat being herbaceous, and living on the same food as the sheep, should destroy all prejudice that may exist. The she goat sometimes gives as much as six quarts of milk, if they are superior milkers, and the milk is not only rich in cream but in all the elements that form a complete food. Butter is not made from goats' milk, but some of the richest and best-flavored cheeses are produced from it. We predict that ere long we will begin to import strains of good milking goats from Europe.—*Farm, Field and Stockman.*

INDUSTRIAL TEACHING.

The State of Massachusetts has recently established eighty free scholarships at the Massachusetts Agricultural College, which any worthy young man in the State, above the age of sixteen, who can pass the entrance examination, is entitled to enjoy.

There seems to be a general tendency to substitute practical, scientific instruction and various kinds of elective studies for the old classical course. Why should the course of study be made of cast iron? Young men have far different tastes, mental bents, so to speak, natural adaptations. They are much more likely to succeed in life if educated in the direction of their natural capabilities. Industrial teaching of all kinds is good in its place, but it should not be substituted for the proper mental training. Boys go to school and to college first of all to get mental discipline, a maturing and developing of the faculties with which nature has endowed them. With this as a basis, they then need to get instruction and information bearing upon their future profession. If they cannot so early fix upon their occupation in life, then a general course may be selected which will store the mind, strengthen the judgment and broaden the views in a way to prepare them for success in almost any department of business. Industrial education is never amiss if not carried too far and at an age when the principal need is mental training.

The example of Massachusetts should be followed by other States. Nearly one-half the population of the United States are farmers. Every State should have not only the Agricultural College, but should put it in the power of all our most promising farmer's sons and daughters, whether their parents are wealthy or not, to avail themselves of its privileges. This, no doubt, is the design of the Massachusetts free scholarships. Why should not every State make a similar provision?—*Farm, Field and Stockman.*

—During the later periods of Roman history, the men and women reclined together at their repasts; but the Greeks considered such a posture indecorus for females; their women, therefore, either sat at a separate table or upon one end of the couch on which the men only reclined.

—The roof is the most important part of a pig-stye, as indeed it is of all buildings for sheltering stock. The floor of a pig-pen may be earth with a little straw. In fact many people object to board or plank floors which form harbors for rats and other vermin. But the roof must be waterproof.